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ABSTRACT

This paper discusses the research methodology used to determine the main dimensions of satisfaction-dissatisfaction (fertility values) associated with family size. A survey instrument was used to interview approximately 300 white women with none, one, two, or four children. Within the survey instrument, three different approaches were used to elicit the respondents' fertility values: (1) "why" questions which probe the motivational bases underlying answers to other structural questions, (2) an eight-part, open-ended question used to elicit fertility values for specific family sizes, and (3) a card-sorting task that measured respondent judgments on a pre-established list of potential fertility values. It was concluded that the administration of the three methods was worthwhile since the analysis of the data indicated each method produced some results in common as well as some unique results. The examination of the comparisons between methods, illustrated by three tables, include: (1) an outline of the fertility value coding scheme for content analysis, (2) the 10 top responses in each of the three approaches to revealing fertility values, and (3) a listing of the likes and dislikes of family sizes. Indications for future research are discussed. (SDH)

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DETERMINING THE PERCEIVED REWARDS AND COSTS OF FAMILY SIZE*

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None of us needs to be reminded that children bring pains as well as pleasures to parents. Writers throughout history have commented upon the dual consequences of parenthood, though they have disagreed as to whether, on balance, the goods of children outweigh the bads. Cicero waxed rhapsodic in asking, "Of all nature's gifts to the human race, what is sweeter to a man than his children?" The answer of Thomas Otway is ominous: "Children blessings seem, but torments are; When young, our folly, and when old, our fear." More of the ambivalence of parenthood is voiced in Braithwaite's assertion, "Children reflect constant cares, but uncertain comforts."

Moving from literature to science, an important and interesting question for research is whether the net satisfactions and dissatisfactions of children, as viewed by parents and prospective parents, are seen to vary with family size. And if so, along what dimensions do those satisfactions - dissatisfactions vary? Such may be stuff out of which family-size desires are formed. These concerns are the subject of a study I am currently directing and on which I shall report today. This paper will be a progress report, for the analyses are not completed nor all conclusions drawn. But since the study's purpose is to examine methods, I can describe to you the methods we have employed and our evaluations of them so far. I shall illustrate what the methods do with substantive results, but it should be clearly understood that the results cannot be generalized beyond our sample, suggestive though they may be for hypotheses to be examined in studies with truly representative samples. Our study is limited to 300 married

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white women with none, one, two, or four children, living in the Buffalo, New York metropolitan area.

Defining the Problem

Essentially, our study attempts to determine: (a) What are the main dimensions of satisfaction and dissatisfaction associated with family size, (b) how satisfaction-dissatisfaction on those dimensions varies with family-size; and (c) what kind of model best relates satisfaction on separate dimensions to the net perceived satisfaction with different family sizes. The part I shall discuss today is just the first -- the main dimensions of satisfaction - dissatisfaction with family size. I call these fertility values, which implies their relation to the general value concept, but I shall not go into that today. The main conceptual point here is the dimensional nature of fertility values, which means that they can vary in the degree of satisfaction or dissatisfaction associated with them at different family sizes. Taking a simple example, financial costs can be a fertility value, for commonly people associate different degrees of satisfaction or dissatisfaction with the financial costs of different family sizes. Our first problem, then, is to find the main fertility values, which methodologically converts to the problem of how to determine what the fertility values are that people use.

Methods Employed

Within our survey instrument, three different approaches were used to reveal the respondents' fertility values.

The first approach relied upon the survey researchers' time-honored question of "Why?" to probe the motivational bases underlying the answer to a previous question. In our case the previous question asked the respondent for her desired family size. After she had answered, she was asked "Why did you choose that number?" Although it could be assumed that fertility values are likely to be mentioned in the answers, in fact little useful information was expected from this question. A pilot attempt with the question

at our local Planned Parenthood clinic revealed that respondents often seemed to grope desparately to utter something sensible and the answers were generally uninformative, such as "We always wanted two children" and "Three seems like a nice sized family". Nevertheless, the question was included in our survey both to prepare the respondents for later questions and to ascertain whether the question would call out fertility values that the other questions did not.

The second approach used an eight-part open-ended question, introduced as follows:

> Now I would like to learn some of the reasons for your family-size preferences. As with most things in life, you may feel that there are things you like about having a certain number of children, but also some things you wouldn't. That is, there are pleasures and advantages, as well as disadvantages and things you would prefer to avoid.
>
> Suppose now that you had exactly three children when your family was completed. What things would you most like about having that many children, instead of more or less?

After the respondent answered, she was asked "What wouldn't you like?" The word "dislike" was intentionally avoided to minimize overtones of rejection of children. These questions were subsequently repeated for families of no children, six children, and one child. By asking about a wide range of family sizes, it was felt that the eight-part question would elicit fertility values that may be salient for some family sizes but not for others. It thus casts a wider net than does the "why" question of the first approach, with an expected increased probability of eliciting the respondent's main fertility values.

To determine fertility values from the first two approaches, content analysis of the respondent's verbal answers was made. One coding scheme was developed to apply both to the explanations of family-size desires and to the likes and dislikes for particular family sizes, with only minor modifications

between each. It is a hierarchical scheme, in which the fertility values are first grouped by their reference to either children's welfare, husband-wife welfare, welfare of the family as a whole, and society's welfare. Within each of these groups are categories and items (subcategories) as illustrated in Table 1. The coder's task was to assign the appropriate items to the respondents' answers, a procedure which automatically placed the answers into the categories and groups as well. Analysis at any of the three levels is possible.

The second approach was included in our survey primarily to complement the third approach, which more directly measures the importance of fertility values by using respondent judgments on a pre-established list of potential fertility values. (These were obtained from a literature review.) Example statements of the potential fertility values were the following:

"Having well-adjusted, normal children"
"Avoiding confusion and mess in my home"
"How hard I must work as a mother"

Unlike the general, abstract, labels for values usually found in the social science literature, it can be seen that we used specific, concrete phrases with first person references.* It was felt that the respondents could more readily understand and relate to the values in this form. It is important to note the methodological point, however, that none of the descriptions referred to family size. To tie the value descriptions to family size would prejudge the question of which of them are fertility values. That we wanted to learn from the respondents, which we did by asking them to sort the values, presented to them on cards, in each of two ways. First, the respondent was required to sort the cards into five piles by which she would indicate how important each item was to her; the response categories ranged from "Not important" to "Extremely important". Next, the respondent sorted the cards into five piles again, this time to indicate the perceived effect of family size on each of the values. The instructions carefully explained the task, with examples given for added clarification. The specific question the respondent was to consider was "How much difference would the number of my children make?" (to each value); the response categories ranged from "No difference"

*The highly specific references seem best called value manifestations, reserving the value label for the central dimensions or factors (as in factor analysis) underlying the specific manifestations. Throughout this paper, however, we shall use the term value as a shorthand label for "value manifestations".

to "Very big difference". By assigning a score from 0 to 4 to the response categories for each sort, the product of the two scores for each value is then used to indicate its importance as a fertility value. In other words, to be an important fertility value, a value must be both important to the respondent and be perceived as strongly affected by family size.

The Methods Compared

Although each of the three approaches we have described was included in the survey to serve its own particular purpose, the approaches can be compared for the common purpose of revealing the respondents' most important fertility values.

A brief comparison of the facility of administering the three methods is worthwhile. As anticipated, the respondents usually gave terse answers when asked to explain their family-size desires in the first method, and the interviewers reported occasional signs of respondent anxiety when trying to explain their preferences. A marked contrast was shown with the second method, for the respondents had much to say about what they liked and disliked about various family sizes. True, nearly a third of the respondents could think of nothing they would like about having six children, but generally most were sufficiently articulate to require a fairly complex content analysis scheme to code the variety of concerns. Of the three approaches, the third presented the most problems in administration. The two card sorts tend to be tedious, and some respondents had difficulty understanding the difference between the two tasks. In addition, the entire purpose of the sorts is lost for those respondents who did not discriminate among the values, indicating, for example, that they are all important or are much affected by family size.

Let us turn now to substantive results with the three methods. Our chief concern here is whether the different approaches lead to similar or different conclusions about the respondents' most important fertility values.

Immediately apparent in the results of the open-ended questions is the fact that the interests of the parents and of the children overwhelmingly predominate; concerns about the family as a whole and about society are uncommon. Preliminary indications are that parental interests outweigh mentions of children's welfare, although that is due in large measure to parental interests in financial matters. Society's interests are reflected almost exclusively as overpopulation concerns, which were mentioned by slightly over 10% of the respondents. (That demographic knowledge is filtering into the general population is revealed by one respondent's assertion that she should have exactly 2.2 children.)

Suppose we were to use each method independently to conclude what were the ten most important concerns of the respondents with respect to family size. Table 2 compares the results we might use for that purpose. The first column on the left shows the results of the respondents' explanations for their family-size desires. Our expectations about this approach are confirmed, for it can be seen that the most frequently mentioned concerns are rather trite; if those were the only results in our study, we would strongly doubt that parents or prospective parents really give much thought to rewards and costs. After the most popular response about economic matters, the second most frequent response is that family size desires result from a preference to have a certain balance of boys and girls. Next in the order are the family of orientation references, typified by the statement "I want a large family because I come from a large family". Following that is a category of "Non-answer," in which the respondent merely asserts, in effect, that her desired family size is a good size to have. Finally we get to population concerns and other things mentioned in the bottom half of the list which we might consider rewards and costs dimensions, but few respondents mentioned those items. Perhaps more intensive follow-up probing by the interviewers would have produced explanations of greater substance, but it is apparent that the first replies to the question "Why did you choose that number?" are not very informative.

In the second column are the concerns mentioned as likes and dislikes for one, three, or six children. (Responses about childlessness will be presented later.) It is difficult to distill in one column of figures the complex data set produced by these questions, but as one useful way, we have chosen to list the items according to the maximum proportion of respondents mentioning the item in any of the like and dislike questions about the three family sizes. For example, economic concerns were mentioned most frequently when the respondents were asked what they would not like about having six children.

The first thing to be noted in column two is that the percentages are substantially higher than in column one, which reflects the fact that the respondents had more to say when asked about their likes and dislikes. Moving down the list, it may be noted that economic concerns and the last three items all fall within our general category labelled "Mental and physical demands on parents". The remaining six items all refer to the single category "Children's welfare".* Thus, of the dozen categories within our content analysis scheme (see Table 1), two categories exclusively cover the "top ten" items in the results of the second method.

Two other observations may be made about the results in column two of Table 2. First, all but one of the items was mentioned with respect to either one child or six children, which suggests that the concerns tend to peak at the extremes of family size. Only one concern is most frequently expressed for three children, and that is the item about conflict among the siblings. From a perusal of the original answers, the respondents seem to

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*The interpretation should not be made that children's welfare dominates the answers in the second method. Although the proportions mentioning any one itemof parents' welfare were generally smaller, there were more different items of parents' welfare mentioned, so the total mentions of parents' welfare were comparable to the mentions for children's welfare.

refer here mainly to the idea that in a three-child family, one child tends to be left out or caught in a two-against-one situation. The second observation about the answers in column two is that eight of the ten items are dislikes, which indicates that the respondents were more in agreement on what they didn't like about family sizes than about what they did like. The significance of that is left to the reader's speculation.

Turning now to the third column, we see the kind of results produced by the card sorts. (Please note that these results are from a 1-in-4 subsample of our total; this special analysis was made solely for this paper.) The most striking aspect of the results from this method is that no concerns stand out as decidedly more important to the respondents than others. This seems partially due to the earlier-notice tendencies of some respondents not to make much distinction among the card items. A second noteworthy aspect of the results is that some items appear in the top ten which were infrequently mentioned in the open-ended questions. For example, the respondents gave very high ratings to the item "How hard my husband must work", yet any statement to that effect was a rarity in the answers to the open-ended questions.

Overall then, the three methods produce some results in common and some unique results. Perusal of Table 2 reveals that the following tend to stand out as important fertility value manifestations in at least two of the three methods:

1. Economic concerns in general; providing for the children in particular
2. Parental attention to each child
3. Companionship of siblings
4. The mental strains and worries of parenthood
5. The physical work and energy requirements of parenthood
6. Overpopulation concerns.

The first method contributed negligibly to this list and for reasons that are now apparent, it should not be relied upon to learn about fertility values unless, possibly, extensive probing is used. The questions on likes and dislikes tend uniquely to elicit concerns about social relations among siblings, while the card sort methods uniquely suggests the importance of concerns about the husband as well as crowding and privacy in the household.

The last set of results for presentation here are in Table 3, which shows more clearly how different concerns become most salient at particular family sizes. (We have presented data on whole categories for clarity.) One point particularly to be noted is that for the first four value categories, the per cent differences among one, three, and six children are small in comparison with the difference in mentions between childlessness and the rest. Such values seem to be more relevant to the question of whether to have children or not than to the question of how many to have. For the other value categories in Table 3, number of children clearly is relevant. It may be noted, however, that the categories of physical living conditions and family social relations were associated mainly with a six-child family, so we would not expect those values to much affect relative preferences among the smaller family sizes. Note that of the three methods for studying fertility values, only the second is able to reveal such complexities.

Conclusion: Where Do We Go From Here?

We have only begun to digest our data and determine the significance of them all, so that process will continue. One foremost need with respect to establishing the most important fertility values is to reduce the size of our lists by using methods such as factor analysis and cluster analysis to determine major dimensions. We suspect that this effort may also reduce some of the seeming disparities among the results of the different methods. For example, the high ratings of "how hard the husband must work" in the card sort may reflect the same fertility value as economic concerns.

Once we have established what we believe are the main fertility values of our respondents, we shall be ready for a second survey of similar respondents. At that time we shall endeavor to determine utility functions for each main fertility value with respect to family size, then go on to use those utility functions to understand the respondents' relative preferences among family sizes. Ambitious? Probably. But in another part of our study we have already established the fact that our respondents have rather clear-cut preferences among different family sizes, so the evaluative bases of these preferences must be explainable.

Table 1. OUTLINE OF FERTILITY VALUE CODING SCHEME FOR CONTENT ANALYSIS

LEVEL I	LEVEL II	Number of Items in Category	LEVEL III Example Item
Family welfare	Family social relations	3	Fun & recreation as a family
	Family viability and status	5	Family perpetuation
	Physical living conditions in the home	5	Noise & confusion vs. peace & quiet
Children's welfare	Children's welfare	10	Parental attention vs. neglect
Husband-wife welfare	Emotional satisfactions/dissatisfactions	7	Loving/being loved by children
	Self concerns	5	Self-fulfillment: woman/wife/mother/person
	Opportunities & freedoms, effects of children on	6	Job, career for wife
	Marriage, effects of children on	4	Quality of marital relations
	Stimulation of parents by children	4	Interesting, varied family life
	Mental/physical demands on parents	10	Work/energy required from wife
	Future happiness of parents	5	Old age security
Society's welfare	Considerations for society	3	Overpopulation

Table 2 TEN TOP RESPONSES IN EACH OF THREE APPROACHES FOR REVEALING FERTILITY VALUES

I. Explanations of Family-Size Desires	% Respondents Mentioning
Economic concerns: General	30%
Interesting family life (mixture of sexes)	26%
Family of orientation	13%
Just right, not too many, etc.	12%
Overpopulation concerns	11%
Parental satisfaction-General ("I love children")	8%
Mental/physical burden-General	6%
Materially providing for children	6%
Companionship of siblings	5%
Education for children	4%

II. Likes & Dislikes of Three Family Sizes	Maximum % Respondents Mentioning
Economic concerns: General	58% (dislike-6)*
Spoiling of child	55% (dislike-1)
Companionship of siblings	55% (dislike-1)
Parental attention to each child	36% (like-1)
Conflict/exclusion among siblings	31% (dislike-3)
Social benefits of siblings	27% (dislike-1)
Materially providing for children	25% (like-1)
Work/energy required from mother	21% (dislike-6)
Mental efforts/worries for mother	20% (dislike-6)
Mental/physical burden-General	18% (dislike-6)

III. Card Sorts on Importance & Family Size Effect*	Mean Rating Product
Parental attention to each child	9.
How hard husband must work	8.
Amount of attention between husband and wife	8.
Materially providing for children	8.
Education for children	8.
Mental strain for parents	8.
Obtaining adequate housing	7.
Everyday expenses	7.
Overpopulation	7.
Privacy for family members	7.

*Parentheses show whether maximum mention was as a like or dislike and the family size in question.

*Preliminary analysis of 1/4 sample

**Possible range of scores: 0 to 16

(No card mentioned companionship of siblings)

Table 3 LIKES AND DISLIKES OF FAMILY SIZE: CATEGORIES MENTIONED BY MORE THAN 20% OF RESPONDENTS IN AT LEAST ONE ANSWER

Category	Maximum % Mentions as Like or Dislike of: 0 children	1 child	3 children	6 children	
Opportunities & freedom for husband-wife	74% like	27% like	10% like	20% dislike	Values predominantly associated with presence/absence of children
Parental emotional satisfactions/dis.	61% dislike	21% dislike	16% like	15% like	
Self concerns (self-fulfillment)	52% dislike	7% like	3% like	3% like	
Effects on the marriage	20% dislike	1% like	2% like	4% dislike	
Family viability & status	20% dislike	2% dislike	1% like	3% like	
Mental/physical demands on parents	42% like	28% like	39% like	79% dislike	Values predominantly associated with number of children
Children's welfare	3% dislike	92% dislike	68% like	47% dislike	
Physical living conditions in home	5% like	4% like	9% dislike	27% dislike	
Family social relations; togetherness	5% dislike	3% like	9% like	21% like	